

**Remarks and Arguments**

This response fully addresses the issues raised in the aforementioned Office action. A detailed discussion of each issue is provided in the sections that follow. No new matter has been added by this response.

**Comments on Amendments to the Specification**

Paragraphs on pages 2 and 6 have been amended to replace the identification of a previously co-pending Application with the identification of the U.S. Patent that issued from that Application.

The Summary of the Invention section has been amended to recite that the invention relates to disposable absorbent articles and thereby make it commensurate with Claim 11 as amended in the previous response, obviating the objection raised in the current Office action.

The second paragraph of the Detailed Description section has been amended to further clarify the definition of the term “disposable”, which definition was added in the immediately preceding response. This clarification is supported throughout the original disclosure.

Two paragraphs referring to several of the originally incorporated reference and outlining certain aspects of their disclosures that pertain to the non-removable disposition of absorbent core components other than the removable absorbent core component or components have been added into the specification. The content of these paragraphs is fully supported in the incorporated references and in the originally filed specification, including where each of the references was identified and incorporated by reference. For example, the paragraph beginning on page 12 at line 31 of the specification as originally filed clearly states that preferred configurations for the assembly of the topsheet, backsheet, and absorbent core are described in the incorporated references. It is averred that it is completely clear to one of skill in the art that the incorporated descriptions of the non-removable disposition of absorbent core components do not apply to the removable absorbent core components so identified and described in the present Application insofar as such descriptions would contradict the descriptions of the removability and replaceability of these absorbent core components.

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Three paragraphs on page 7 and one paragraph on page 12 have been amended to change the term “opening 41” to read “aperture 44” and thereby conform the text to the changes being proposed in the reference numerals in Figure 10. Several of these terms and reference numerals originally reading “opening 41” and 41, respectively, were corrected in November 1998 to read “aperture 44” and 44, respectively. However, for an unknown reason, they were changed back in September 2000 and now need to be re-corrected. Please also see the discussion of this issue in the Amendments to the Drawings – Figure 10 section of this response.

A paragraph on page 15 has been amended to change “show” to read “shown”.

The paragraph bridging from page 24 onto page 25 has been amended to correct a figure number to read 10 instead of 1.

Two paragraphs on page 25 have been amended to correct a reference numeral to read 52 instead of 51 and *vice versa* and thereby conform with the other occurrences of these elements in the specification and drawings.

An extraneous paragraph on page 27 has been deleted.

The Abstract has been amended to shorten it to 150 words in length and to eliminate certain terminology. It is believed that this amendment fully addresses the objection raised in the Office action.

It is believed that these amendments fully address the objections raised in the current Office action.

#### **Comments on Amendments to the Claims**

Claim 11 has been amended in this response to eliminate the recitation of “at least one removable absorbent core component” in the preamble. This recitation in the preamble was redundant to the later recitation of “at least one removable second absorbent core component”.

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Claim 11 has also been amended in this response to recite that the backsheet is substantially fluid impervious. Support for this amendment is found in the specification as originally filed, including in the first paragraph of the original Summary of the Invention section.

Claim 11 has also been amended in this response to recite that the multi-layered first absorbent core component is non-removably disposed in at least the crotch region. Support for this amendment is found in the specification as originally filed, including in the incorporated references, as described above in the comments on the amendments to the specification.

#### **Response to Claim Rejection Under 35 U.S.C. § 112, second paragraph**

In the subject Office action, all of the pending Claims were rejected under 35 USC 112, second paragraph, and it was stated that it was not clear how many removable components were being claimed in Claim 11. The redundant recitation in the preamble of Claim 11 of "at least one removable absorbent core component" has been eliminated and its elimination is believed to obviate this rejection.

#### **Response to Claim Rejections Under 35 U.S.C. § 103(a)**

In the subject Office action, all of the pending claims were rejected under 35 USC 103(a) as being unpatentable over G.B. 493,819 to Lewis in view of WO 91/16871 to Lopez *et al.*, U.S. 5,325,543 to Allen, G.B. 734,994 to Murphy, U.S. 833,849 to Schiff, U.S. 2,688,328 to Marcus, and U.S. 5,387,207 to Dyer *et al.*

The rejections under 35 USC 103(a) are respectfully traversed on the ground that a *prima facie* case of obviousness has not been established.

#### **Basic Requirements of a *Prima Facie* Case of Obviousness**

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. There must be some suggestion or motivation to modify the reference or to combine reference teachings, there must be a reasonable expectation of success, and the prior art reference (or references when combined) must teach or suggest all the claim limitations.

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**Failings of Lewis Reference Taken Alone to Teach or Suggest All Claim Limitations**

It was stated in the Office action that the device or article of the Lewis reference clearly includes all of the structure and function claimed in Claim 11 except for

- 1) the capability of disposal,
- 2) the capability of removal of an absorbent component without removal of the article,
- 3) a recloseable flap and fastener, and
- 4) the first core component including an acquisition layer and an acquisition/distribution layer.

This statement is respectfully traversed on the ground that the Lewis reference fails to disclose numerous limitations of Claim 11, in addition to those listed above, as detailed below.

Before going beyond the four listed failings of the Lewis reference, it is noted that it was stated in the Office action that "Lewis does not set forth whether the sheets 6 and 7 and the pad component 12 are disposable, reusable, or both". However, the reusable nature of these items is clearly revealed in Lewis. On page 2, line 130 through page 3, line 4, Lewis refers to the diaper as "washable". On page 2 at lines 26 through 36, Lewis teaches that a "pad 12 is interposed between the sheets 6 and 7. As here shown it [the pad 12] comprises...layers or plies 13 made of the same material as the sheets 6 and 7. This type of pad is preferred because it can be made of material that would otherwise be wasted in cutting out the sheets 6 and 7" (underlining added). Thus, Lewis teaches away from disposability, and the statement in the Office action that it would have been obvious to make the Lewis article of disposable materials is traversed on this basis.

In addition to the four failings listed in the Office action, the Lewis reference also fails to disclose at least the following limitations included in Claim 11.

- A substantially liquid impervious backsheet. Lewis clearly teaches that sheets 6 and 7 are liquid pervious, including by describing them as being identical and repeatedly referring to the material from which they are both made in the singular sense (page 1, lines 70 through 75; page 1, line 92; page 2, line 33, page 3, lines 26 through 32). Since the inner sheet 6 must be liquid pervious for functionality, then the outer sheet 7 made of the same material is likewise liquid pervious.
- Multiple absorbent core components. Lewis repeatedly describes the pad 12 in the singular sense (page 1, lines 70 through 75; page 2, lines 26 through 49; page 2, lines 62

through 91) while stating that the pad may be of either single or multi-ply construction (page 2, lines 27 through 29; etc.)

- A non-removable absorbent core component in combination with a removable absorbent core component. Lewis clearly describes his single pad as being alternatively non-removable (page 2, lines 66 and 67) or removable (page 2, lines 67 through 74; etc.) but never discloses any notion of having both non-removable and removable absorbent core components in the same diaper.
- A removable absorbent core component disposed in a waist region. Lewis clearly defines and shows his waist regions as the “full width end or waistband portions 8 and 9” (page 1, lines 99 and 100; etc.), which definition is consistent with the applicants’ designation, while clearly showing his pad 12 lying in only the “relatively narrow intermediate crotch fitting portion 10...bounded by concave curved edges 11” (page 1, lines 101 through 103).
- A removable absorbent core component in fluid communication with another absorbent core component. As noted above, Lewis clearly discloses only a single pad.

#### Failings of All Cited References to Teach or Suggest All Claim Limitations

Now that the failings of the Lewis reference alone to teach or suggest all of the limitations of Claim 11 have been more fully delineated, the failings of each of the cited references to teach or suggest all of the limitations of Claim 11 will be addressed in groups in the order in which these limitations appear in Claim 11.

- Disposable absorbent article
  - Of the seven references cited, only Lopez, Allen, and Dyer disclose disposable absorbent articles.
  - Lewis refers on page 2, line 130 through page 3, line 4, to the diaper as “washable”. On page 2 at lines 26 through 36, Lewis teaches that a “pad 12 is interposed between the sheets 6 and 7. As here shown it comprises...layers or plies 13 made of the same material as the sheets 6 and 7. This type of pad is preferred because it can be made of material that would otherwise be wasted in cutting out the sheets 6 and 7.” (Underlining added.) Thus, Lewis teaches away from disposability.

- Murphy discloses a durable or reusable article, rather than a disposable article, as is clear from the extensive description of relatively expensive and highly durable fastening devices, as well as the explicit emphasis on the advantage that the diaper “can be readily aired and dried after washing” (page 2, lines 75 through 88).
- Schiff teaches that the “materials employed in the construction of the garment may be of any character suited to the purpose, provided they...will stand successive laundering” (page 1, lines 47 through 51).
- Marcus emphasizes the disposable nature of the insert pad while also emphasizing the protection of the other parts of the diaper from being soiled by contact with a soiled disposable insert (col. 1, first, second, and third paragraphs, as well as describing those other parts as comprising relatively expensive and highly durable features such as a fastener in the form of a button.

  

- Liquid impervious backsheet
  - Of the seven references cited, Lewis, Allen, and Murphy disclose a liquid pervious backsheet, rather than a liquid impervious backsheet.
    - Lewis clearly teaches that sheets 6 and 7 are liquid pervious, including by describing them as being identical and repeatedly referring to the material from which they are both made in the singular sense (page 1, lines 70 through 75; page 1, line 92; page 2, line 33, page 3, lines 26 through 32). Since the inner sheet 6 must be liquid pervious for functionality, then the outer sheet 7 made of the same material is likewise liquid pervious.
    - Allen explicitly and repeatedly emphasizes the low cost and comfort of its single ply non-woven or woven cotton material (Abstract; col. 3, lines 21 and 22; col. 3, lines 41 through 44; col. 5, lines 13 through 23; etc.).
    - Murphy describes both of the “two thicknesses 1 and 2” (page 1, line 78) as being of the same material (page 1, lines 30 and 31; page 1, lines 78 and 79; Claim 1, etc.) that is necessarily liquid pervious.
  
- Fluid pervious topsheet
  - Schiff and Marcus fail to disclose a fluid pervious topsheet.

- Schiff discloses a garment “constructed somewhat on the lines of a pair of drawers” (page 1, lines 34 through 36), inside of which a pad or napkin may be placed, with no topsheet present.
- Marcus discloses the absorbent insert 16 being placed directly against the wearer except where the water repellent material 9 of the second portion 8 overlies the insert.
- Absorbent core disposed between topsheet and backsheet
  - See discussion of the lack of a fluid pervious topsheet in Schiff and Marcus, immediately above.
- Multiple absorbent core components
  - Of the seven references cited, only Lopez clearly discloses multiple absorbent core components.
  - Murphy mentions on page 2 at lines 8 through 10 that “one or more additional pads 8 of absorbent material” may be inserted into its pocket, but the word “additional” is inconsistent with the context in which it appears, since no “original” or “first” pad 8 of absorbent material is described or inserted prior to the quoted phrase.
  - Dyer explicitly discloses a multi-layered absorbent core and, if the term “component” were to be applied in such a way as to contend that Dyer discloses multiple absorbent core components, then Dyer would not disclose a multi-layered absorbent core component. In other words, Dyer cannot be construed to disclose both multiple absorbent core components and a multi-layered absorbent core component.
  - It is noted that Figure 3 of Murphy shows two “pads” inside its pocket. However, pad 9 is made of waterproof material (page 2, lines 10 through 13) and so is not an absorbent core component.
- Multi-layered absorbent core component
  - Of the seven references cited, only Dyer discloses a multi-layered absorbent core component.

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- It is noted that Figure 3 of Murphy shows two "pads" inside its pocket. However, pad 9 is made of waterproof material and is a separate pad (page 2, lines 10 through 13), so is not a layer of an absorbent core component.
- Multi-layered absorbent core component non-removably disposed in article
  - Of the seven references cited, only Dyer discloses a multi-layered absorbent core component non-removably disposed in the article.
  - It is noted that Lopez discloses a non-removably disposed absorbent core component, but it is not multi-layered.
- Multi-layered absorbent core component having layers differing in structure and function
  - Of the seven references cited, only Dyer discloses a multi-layered absorbent core component having layers differing in structure and function.
- Multi-layered absorbent core component in combination with removable absorbent core component
  - None of the seven references cited discloses a multi-layered absorbent core component in combination with a removable absorbent core component.
- At least one removable absorbent core component
  - Dyer discloses only a non-removable absorbent core and no access of any shape or form to its absorbent core.
- Removable absorbent core component disposed in waist region
  - Lewis and Dyer fail to disclose a removable absorbent core component disposed in a waist region.
    - Lewis clearly defines and shows his waist regions as the "full width end or waistband portions 8 and 9" (page 1, lines 99 and 100; etc.), which definition is consistent with the applicants' designation, while clearly showing his pad 12 lying in only the "relatively narrow intermediate crotch

fitting portion 10...bounded by concave curved edges 11" (page 1, lines 101 through 103).

- Dyer discloses only a non-removable absorbent core and no access of any shape or form to its absorbent core.
- Removable absorbent core component in fluid communication with another absorbent core component
  - Lopez explicitly teaches away from such fluid communication, to wit:
    - in the Abstract, "when the insert is removed, the diaper contains clean padding for further wear and use"
    - page 4, first paragraph, including "as if the entire absorbent material were to be employed all of the usable time", etc.
    - page 4, last paragraph, including "[a]n important object of the invention is the use of a moisture proof layer on the insert positioned opposite the wearer. This layer protects the main diaper material", etc.
    - page 8, third complete paragraph, including "[t]he insert 36 has a back 38 of liquid impervious flexible material of the same composition as the backsheet 20", etc.
    - page 10, last paragraph, including "[w]hen the insert 36 becomes saturated...the attendant withdraws the insert 36 from the diaper...The diaper now has the padding 24 clean and fresh and may be worn as an ordinary disposable diaper creating the double utility".
  - Removable absorbent core component in fluid communication with separate **multi-layered** absorbent core component
    - None of the seven recited references discloses a removable absorbent core component in fluid communication with a separate multi-layered absorbent core component.

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- Access through backsheet to removable absorbent core component
  - Of the seven references cited, only Lewis, Lopez, and Schiff disclose access through the backsheet.
  - Allen discloses access only via the interior of the garment.
  - Murphy explicitly describes and shows opening 7 through the interior side 1 of the diaper (page 2, lines 3 and 4; etc.)
  - Marcus describes and shows a continuous backsheet of water repellent material 5 and 5a, which is swung open for access to the removable insert 16.
  - Dyer discloses no access of any shape or form to its absorbent core.
- Removable absorbent core component may be removed through backsheet
  - See the discussions of access through backsheet and discontinuity in backsheet web above.
- Removable absorbent core component may be removed through backsheet without having to remove absorbent article from wearer
  - The removable absorbent core components of Allen, Murphy, and Marcus clearly cannot be removed through the backsheet without the absorbent article being removed from the wearer, since none of the three discloses access through the backsheet.
  - Dyer discloses only a non-removable absorbent core and no access of any shape or form to its absorbent core.
- Discontinuity in backsheet web
  - Of the seven references cited, only Lewis, Lopez, and Schiff disclose a discontinuity in the backsheet.
  - Allen discloses access only via the interior of the garment.
  - Murphy explicitly describes and shows opening 7 through the interior side 1 of the diaper (page 2, lines 3 and 4; etc.)
  - Marcus describes and shows a continuous backsheet of water repellent material 5 and 5a, which is swung open for access to the removable insert 16.
  - Dyer discloses no access of any shape or form to its absorbent core.

- Recloseable flap secured over discontinuity in backsheet and fastener for same
  - Of the seven references cited, only Schiff discloses a flap secured over a discontinuity in the backsheet and a fastener for that flap.
  - It is respectfully pointed out that although Marcus recites "a flap accessible from the front of the baby" (col. 1, lines 14 and 15), what is actually disclosed is a continuous backsheet, a portion of which can be swung open after detachment from the second portion 8, which second portion 8 is separate from the backsheet, overlies the insert 16 and is therefore not a backsheet or a part of a backsheet, and covers no discontinuity in the backsheet, since no such discontinuity exists, as noted above.

#### Specifics of Statements of Rejection

##### 1) Capability of disposal (Office action, page 7, lines 14 and 15)

Reference was made in the Office action to several sections of Lopez and Allen and then it was stated that it would be obvious to make the Lewis device of disposable materials. However, this conclusion is both unsupported by the referenced sections and contrary to the knowledge of one of skill in the diaper art.

First, as for the referenced sections of Lopez and Allen:

- Lopez at page 1, lines 4 through 7 does not mention disposability.
- Lopez at page 1, lines 9 through 14 merely alludes to the generality that some diaper users prefer to throw away a soiled garment rather than washing and reusing it. However, even today, 65 years after Lewis's patent, the market for durable, i.e., restorable and reusable, diapers continues to exist because other diaper users continue to prefer this form over the disposable form. This fact points out that the distinction between durable articles and disposable articles is one of the very nature of the articles, rather than a substitution of an equivalent for something. Therefore, two distinct markets continue to exist and both durable and disposable diapers continue to be manufactured and sold. The mere fact that Lopez chose to make his diaper of disposable materials does not mean that the preferability of disposable diapers is universally accepted. Nor does it constitute a suggestion to modify someone else's diaper design. In fact, Lopez discloses in the text

immediately following the referenced lines that disposable diapers do not successfully address all of the needs of the users. And, in the last paragraph on page 1 and the remainder of the document, Lopez reveals that his point is not to make diapers disposable instead of durable, but to add “an improvement that allows a more convenient and longer lasting usage” to enhance the utility of a disposable diaper.

- Lopez at page 4, lines 8 through 15 and 30 *et seq.* does not mention disposability.
- Lopez at page 7, lines 11 through 13 discloses merely that its “backsheet 20 is much like the ones found on most modern disposable diapers except that it contains a slit 22 near the back edge” without stating anything related to the preferability of disposability.
- Lopez at page 11, lines 6 through 8 discloses merely that the slit can be located near the front edge, instead of the back edge, without stating anything related to the preferability of disposability.
- Allen at column 1, lines 15 through 66 merely states the well known facts that the prior art discloses both durable and disposable undergarments and that each of several types has advantages and disadvantages relative to other types. However, the mere fact that Allen chose to make her garment of disposable materials does not mean that the preferability of disposable garments is universally accepted. Nor does it constitute a suggestion to modify someone else’s diaper design. Instead, given Allen’s object “to provide an...undergarment which is low-cost, lightweight,...and which may be disposable” (col. 3, lines 41 through 44), her choice of disposable materials might make sense (but see next bullet point), but her choice is certainly not a suggestion that all undergarments should be made of disposable materials or that the needs and preferences of all diaper users can be met by making all diapers disposable instead of durable.
- Allen at column 5, line 13 through 23 discloses her preferred “single-ply material” alternatives and, in fact, states that “a washable and reusable material, possibly of several plies [sic], such as a woven cotton material, could also be used” (underlining added for emphasis) as an alternative to a non-woven material. Thus, rather than providing suggestion or motivation to change the nature of the Lewis article from durable and reusable to disposable, Allen explicitly states that even her article could be made of a “washable and reusable material”.

- Allen at column 6, lines 40 through 43 discloses only that the transverse edges 38 of the pocket portion 14, which lies interiorly of the body portion 12, may be unattached to allow access to the interior of the pocket 28, without stating anything related to the preferability of disposability.

Thus, the stated conclusion that it would be obvious to make the Lewis device of disposable materials is completely unsupported by the referenced Lopez and Allen disclosure except for the allusion to the generality that some diaper users prefer disposable diapers over durable and reusable diapers.

In addition, it is well known in the art that the needs and preferences of all diaper users cannot be met by a single design or even by a single type of diaper. Specifically, a large number of diaper users are of the opinion that the environmental impacts of the use of durable and reusable diapers are preferable to the different environmental impacts of the use of disposable diapers, while another large number of diaper users are of the opposite opinion. The marketers of reusable diapers tout the presence of cotton or other cloth in their products and the marketers of disposable diapers tout the dryness of the wearer's skin while wearing their products, and so on. Therefore, it is respectfully averred that the mere fact that one inventor chooses to work in the area of disposable diapers instead of the area of reusable diapers does not constitute a suggestion or motivation to fundamentally alter the nature of a durable and reusable diaper to make it disposable, in the sense that such a suggestion or motivation is required to be demonstrated in order to establish a *prima facie* case of obviousness. Unless one of skill in the art would recognize that a previously unmet need would be met or a previously unsolved problem would be solved, and that the unmet need and/or unsolved problem was directly relevant to the "original" device in question, then no actual suggestion or motivation to modify the reference is being provided. The mere recitation of facts, e.g., some users prefer A over B, or the mere expression of choices, e.g., A can be used in place of B, or even the expression of a preference with regard to a particular context, e.g., A works better than B in context X, fails to constitute the suggestion or motivation required to establish that it was *prima facie* obvious to substitute A for B in context Z.

If all that were required for obviousness was that someone somewhere at some time preferred to use disposable materials instead of durable materials, then by analogy every patent related to a diesel engine could be used to "demonstrate" the desirability of converting all gasoline engines to diesel (advantage: no spark plugs), every patent related to a motorboat could be used to "demonstrate" the desirability of converting all sailboats to motorboats (advantage: no wind needed), and so on, with absurd consequences for the patentability of genuine improvements in the technologies of diesel engines and sailboats.

Furthermore, Lewis effectively teaches against using disposable materials of the types disclosed in Lopez and Allen and using such materials would not be successful if the Lewis article is made in the way Lewis teaches. Specifically, Lewis explicitly states that on page 2 at lines 26 through 36 that a "pad 12 is interposed between the sheets 6 and 7. As here shown it [the pad 12] comprises...layers or plies 13 made of the same material as the sheets 6 and 7. This type of pad is preferred because it can be made of material that would otherwise be wasted in cutting out the sheets 6 and 7" (underlining added). It would clearly be impractical to make the sheets 6 and 7 and the pad 12 of Lewis of any liquid impervious backsheet material typically used in disposable absorbent articles. It would also be impractical make all of these items of any liquid pervious non-woven material typically used in disposable absorbent articles for the topsheet and other body-facing layers, because the absorbent capacity of the resultant article would be exceedingly small. The only alternative remaining would be to make each of the inner sheet 6, the outer sheet 7, and the pad 12 of different materials typically used in disposable absorbent articles, but this would clearly defeat Lewis's objective of eliminating the wastage of the material cut out from the original web to form the curved crotch fitting portions 10 in the sheets 6 and 7.

2) Capability of removal of absorbent component without removal of article (Office action, page 7, line 15)

Reference was made in the Office action to the same sections of Lopez and to Murphy and then it was stated that it would be obvious to employ the opening of Lewis to not only allow the placement of components therein but also to allow the removal of these components therefrom without removal of the article.

With respect to the referenced sections of Lopez and Murphy:

- Murphy contains two pages having lines 3 through 13 and 75 through 88; it is assumed that the reference was intended to be to page 2.
- Murphy discloses only a durable and reusable article.
- Murphy at page 2, lines 3 through 13 explicitly discloses that the opening 7 is located in the interior side 1 of the diaper napkin and, as shown in the figures, it would be impractical to extract the pad 8 through the opening 7 through the interior side 1 without removing the diaper from the wearer.

Also, it is respectfully noted that Lewis explicitly discloses the removal of the pad 12 through a slit indicated by line 17, which may be formed in the outer sheet 7, or by separating unattached edge portions of the inner and outer sheets 6 and 7 in the curved crotch fitting portion 10 between the points X and X' in Figure 1 (page 2, lines 69 through 91). However, Lewis does not state when this removal could be accomplished and it is averred, with reference to the knowledge of those of skill in the diaper art, that it is often impractical to extract an absorbent core component extending through the crotch region while the diaper is being worn without causing significant discomfort to the wearer, especially to a male wearer.

3) Recloseable flap and fastener (Office action, page 7, line 16)

Reference was made in the Office action to sections of Schiff and Marcus and then it was stated that it would be obvious to employ a recloseable flap and fastener in combination with a backsheet discontinuity.

With respect to the referenced sections of Schiff and Marcus:

- Schiff discloses only a durable and reusable article.
- Schiff discloses a flap covering an opening directly overlying a long and narrow catamenial napkin (never shown in the figures) situated inside the garment and held in place by a loop 14 and a safety pin 15. However, Lewis clearly shows the much shorter and narrower pad 12 lying in the crotch fitting portion 10 at some distance away from the slit 17 or 18. Therefore, covering this slit with a flap would make access more difficult, while providing a flap directly over the pad 12 would locate this flap in the crotch

portion, which would be much less functional in a diaper than in a catamenial product, due to such factors as the difference in the volumes of bodily fluids to be absorbed, the differences in the ages of the wearers and the consequent differences in the wearer's levels of understanding of what should and should not be manipulated while the article is being worn, and so on.

- Marcus does not disclose a flap in combination with a discontinuity in backsheet. Instead, as noted above, although Marcus recites "a flap accessible from the front of the baby" (col. 1, lines 14 and 15), what is actually disclosed is a continuous backsheet having no discontinuity, a portion of which can be swung open after detachment from the second portion 8, which second portion 8 is separate from the backsheet, overlies the insert 16 and is therefore not a backsheet or a part of a backsheet, and covers no discontinuity in the backsheet, since no such discontinuity exists. In other words, what Marcus calls a "flap" is actually nothing more than an entire longitudinal portion, i.e., the entire front end of the backsheet, that can be swung open. Because the second portion 8, which lies interiorly of the absorbent insert 16, remains fastened to the opposing rear longitudinal portion of the backsheet, the diaper could perhaps be considered to still be worn, rather than removed from the wearer. However, the structure is completely different from a recloseable flap covering a discontinuity in a backsheet.

4) First core component including an acquisition and an acquisition/distribution layer (Office action, page 7, lines 16 and 17)

Although the language in the Office action seems to recite a single layer, it is assumed that the intention was to refer to the distinct acquisition layer and acquisition/distribution layer recited in Claim 11.

Reference was made in the Office action to sections of Dyer '207 and to Young '554, a continuation of Young '345, as well as to the same section of Allen referenced earlier. It was stated in the Office action that "absorbent structures of multiple acquisition/distribution layers and a storage/distribution layer are known". Finally, it was also stated that it would be obvious to employ the absorbent core structure as taught by Dyer.

With regard to the referenced sections of Dyer, Young, and Allen:

- In Claim 11, the first absorbent core component has an acquisition layer and an acquisition/distribution layer. As described in the subject application, the removable front and back panels 20 and 30 in some preferred embodiments are formed as storage/redistribution components (page 7, lines 3 through 8; page 7, line 33 through page 8, line 8; page 10, lines 25 through 27; page 25, lines 18 through 21) so that they can desorb the other absorbent core components and hold liquid for removal and disposal, thereby enabling the regeneration of the core when a replacement front panel 20 or back panel 30 is inserted.
  - Dyer shows in Figure 5 an acquisition layer 51 and a storage/distribution layer 52 (column 31, lines 13 through 18), sometimes called a storage/redistribution layer. An acquisition/distribution layer is clearly described (col. 30, lines 27 through 39) as being different from a storage/distribution (or storage/redistribution) layer (col. 30, lines 40 through 59).
  - Dyer at columns 29 through 31 explicitly discloses only two layer absorbent cores, with one of the two layers always being a storage/distribution layer or a storage/redistribution layer, which is, as noted above, different from an acquisition/distribution layer.
  - Thus, Dyer does not disclose the claimed absorbent core component having an acquisition layer and an acquisition/distribution layer.
- Young '554 at column 1, lines 25 to 29 discloses only that an objective of improving incontinence articles over the years has been to increase how much and how tenaciously such articles hold bodily fluid. This is merely a fact and this disclosure does not constitute a suggestion to use Dyer's core in Lewis's article, nor to substitute the claimed core, which differs from Dyer's core.
- Young '554 at column 2, lines 32 through 62 discloses that the articles of Young have the acquisition/distribution and storage/redistribution layers mentioned above. This is merely a fact and this disclosure does not constitute a suggestion to use Dyer's core in Lewis's article, nor to substitute the claimed core, which differs from Dyer's core. It is noted that the usage of the terms "layer" and "component" in Young '554 is not always consistent with the usage of these terms in the subject Application, but that reading onward in Young '554, for example into column 3, lines 12 through 36, enables one of skill in the

art to achieve a clear understanding that the aforementioned layers are disclosed in Young '554 substantially as they are disclosed in Dyer '207.

- Young '554 at column 34, line 48 through column 35, line 20 describes in more detail that the aforementioned acquisition/distribution and storage/redistribution layers are arranged in fluid communication with each other and preferably are placed in a layered configuration, i.e., with one of the two layers overlying the other. These are merely facts and this disclosure does not constitute a suggestion to use Dyer's core in Lewis's article, nor to substitute the claimed core, which differs from Dyer's core.
- As noted above, Allen at column 1, lines 15 through 66 merely states the well known facts that the prior art discloses both durable and disposable undergarments and that each of several types has advantages and disadvantages relative to other types. The desirability of "high-absorbency" is mentioned in the context of preventing the transmission of AIDS and hepatitis in hospitals and correctional institutions. However, the absorbent capacity of Lewis's original cloth core is not known and Dyer's or the claimed core could be designed with a capacity less than Lewis's. In fact, Allen fails to disclose anything about the absorbent pad 30 except that it fits within the pocket 28 and, according to Claim 1, it is a sanitary napkin, which is well known in the art to typically have an absorbent capacity less than that of a diaper. Thus, this generality recited in Allen hardly constitutes a suggestion or motivation to use Dyer's or the claimed core in Lewis's article.

It is respectfully averred that the statement that "absorbent structures of multiple acquisition/distribution layers and a storage/distribution layer are known" is not accurately reflective of the disclosures of any of the cited references. Rather than multiple acquisition/distribution layers being disclosed; a single acquisition/distribution layer is disclosed in some embodiments and is always disclosed in combination with a storage/distribution or storage/redistribution layer.

In addition, the conclusion stated in the Office action that combinations of such layers being known makes it obvious to employ Dyer's core in Lewis's article because it would provide "cost efficient fluid absorbency" is likewise not supported, except by conjecture. Consider that the relative costs of Lewis's original cloth core and Dyer's highly technical core containing a specialized foam structure are not disclosed or compared anywhere. Based on only what is

disclosed and well known in the art, it could be just as reasonable to conclude that for users who prefer reusable diapers, the perceived "softness" of Lewis's relatively bulky original multi-ply cloth pad might be preferable to the thinner foam core of Dyer. To apply a point discussed earlier, Dyer's foam core materials are disclosed as enabling improvements in disposable diapers, and there is no automatic applicability to durable and reusable diapers, especially in light of the fairly polarized preferences of the users to whom the two fundamentally different types of diapers are marketed.

### Interim Summary

At this point, it may be helpful to summarize briefly.

#### Even if:

- the fundamental nature of Lewis's article were changed from durable and reusable to disposable, despite the above objections to doing so, and
- the opening without a covering flap of Lopez were adopted, and
- the flap of Schiff is adopted, despite the above objections to doing so, and
- Dyer's multi-layer absorbent core component intended for disposable articles were adopted for the fundamentally altered derivative of Lewis's original reusable article,

the resultant article would still be lacking at least

- a liquid impervious backsheet, and if one were adopted from one of the references disclosing one, this would be contrary to Lewis's teaching to make the inner sheet 6, the outer sheet 7, and the pad 12 all of the same material to eliminate waste and thereby achieve cost-effectiveness, and
- either an absorbent core component that remains in the article, if Dyer's core is used for the removable pad 12, or a removable absorbent core component, if Dyer's core is used as disclosed in Dyer, i.e., non-removably sandwiched or affixed to the chassis, and
- two absorbent core components, one being removable and the other having an acquisition layer and an acquisition/distribution layer, in fluid communication with each other, because
  - Dyer does not disclose an absorbent core component formed of an acquisition layer and an acquisition/distribution layer, and because

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- o even if the disclosure of Dyer were somehow interpreted to described something close to such a structure, the either/or issue detailed immediately above would still exist, i.e., the multi-layer absorbent core component so adopted could form either the removable pad or a pad remaining in the article, but not both.

Therefore, it is respectfully averred that none of the three criteria for the establishment of a *prima facie* case of obviousness has been met with respect to Claim 11, from which all of the other pending claims depend.

#### Additional Statements of Rejection

In addition to the statements regarding the rejections of all of the pending claims, discussed above, the Office action contained several statements pertaining to dependent claims. Although the above discussion is believed to suffice as a complete response, the following additional comments are provided in the hope that they might be helpful.

Dependent Claims 12, 17, 83, 85, and 86 were grouped together in the Office action and reference was made to earlier statements of rejection and to sections of Dyer, but no actual explanation of any additional grounds of rejection were provided. With specific regard to Claims 85 and 86, as noted above, Dyer does not disclose the absorbent core component having an acquisition layer and an acquisition/distribution layer of Claim 11. Therefore, Dyer likewise does not disclose the absorbent core component of Claims 85 and 86 having these two layers plus a storage/redistribution layer.

No comment is believed necessary with respect to Claim 43.

With respect to Claims 33, 37, and 44, the latter two depending from Claim 33, reference was made in the Office action to Lopez, Allen, and Murphy and it was stated that "the prior art shows that access can be provided at one or at two opposite locations in a similar fashion at both ends of Lewis as taught by Lopez, Allen, and Murphy". However, Claim 33 includes the limitations of Claim 11 and the additional limitations of at least one third removable absorbent core component accessible through the backsheet by means of a second discontinuity in the backsheet located in the second waist region and covered by a second recloseable flap. On the other hand, Lopez

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discloses only a single slit near the back edge, Allen discloses only a pocket in the interior of the article, i.e., no access through the backsheet, and Murphy discloses only an opening in the interior sheet near one end of the article, i.e., no access through the backsheet. Therefore, the referenced disclosures provide no basis for the stated conclusion.

### **Summary of This Response**

In light of the above amendments and remarks, it is requested that the objections and claim rejections be reconsidered and withdrawn and that the pending claims be allowed. The issuance of a Notice of Allowance at an early date is respectfully requested.

Respectfully submitted,

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